



Micro Commercial Components  
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# MURF1005CT THRU MURF1040CT

## Features

- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Super fast recovery times, high voltage
- Case : ITO-220AB Full Molded Plastic Package

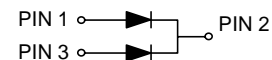
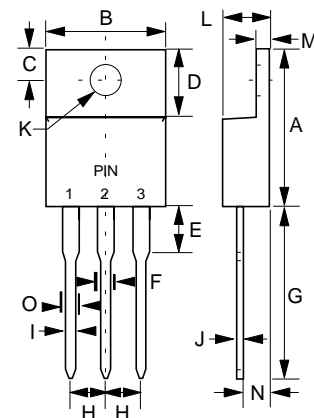
**10 Amp  
 Isolation Super Fast  
 Recovery Rectifier  
 50 to 400 Volts**

## Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

| MCC Catalog Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|--|---------------------|-----------------------------|
| MURF1005CT         | 50V                                    | 35V                 | 50V                         |
| MURF1010CT         | 100V                                   | 70V                 | 100V                        |
| MURF1015CT         | 150V                                   | 105V                | 150V                        |
| MURF1020CT         | 200V                                   | 140V                | 200V                        |
| MURF1030CT         | 300V                                   | 210V                | 300V                        |
| MURF1040CT         | 400V                                   | 280V                | 400V                        |

## ITO-220AB



## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |               |   |
|---|-------------|---------------|---|
| Average Forward Current   | $I_{F(AV)}$ | 10A           | $T_C = 100^\circ\text{C}$                             |
| Peak Forward Surge Current  | $I_{FSM}$   | 150A          | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>1005CT-1020CT<br>1030CT-1040CT | $V_F$       | .95V<br>1.30V | $T_J = 25^\circ\text{C}$<br>$I_{FM} = 5A;$            |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                 | $I_R$       | 5uA<br>500uA  | $T_C = 25^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$ |
| Maximum Reverse Recovery Time<br>1005CT-1020CT<br>1030CT-1040CT         | $T_{rr}$    | 35ns<br>50ns  | $I_F=0.5A, I_R=1.0A,$<br>$I_{rr}=0.25A$               |

| DIM | DIMENSIONS |      |       |       | NOTE |
|-----|------------|------|-------|-------|------|
|     | INCHES     |      | MM    |       |      |
|     | MIN        | MAX  | MIN   | MAX   |      |
| A   | .583       | .606 | 14.80 | 15.40 |      |
| B   | ---        | .406 | ---   | 10.30 |      |
| C   | .100       | .112 | 2.55  | 2.85  |      |
| D   | .248       | .272 | 6.30  | 6.90  |      |
| E   | ---        | .161 | ---   | 4.10  |      |
| F   | ---        | .071 | ---   | 1.80  |      |
| G   | .512       | .543 | 13.00 | 13.80 |      |
| H   | ---        | .100 | ---   | 2.55  |      |
| I   | ---        | .035 | ---   | 0.90  |      |
| J   | ---        | .032 | ---   | 0.80  |      |
| K   | .118       | .134 | 3.00  | 3.40  | ∅    |
| L   | ---        | .189 | ---   | 4.80  |      |
| M   | ---        | .130 | ---   | 3.30  |      |
| N   | .098       | .114 | 2.50  | 2.90  |      |
| O   | ---        | .055 | ---   | 1.40  |      |

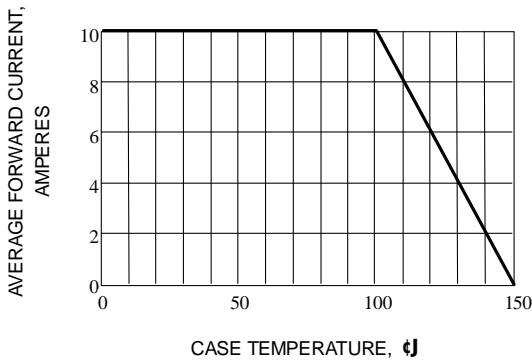


Fig. 1-FORWARD CURRENT DERATING CURVE

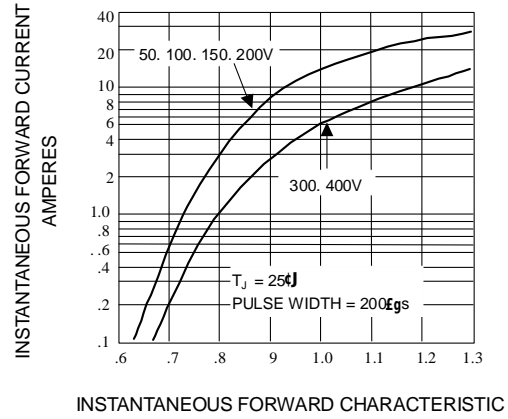


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

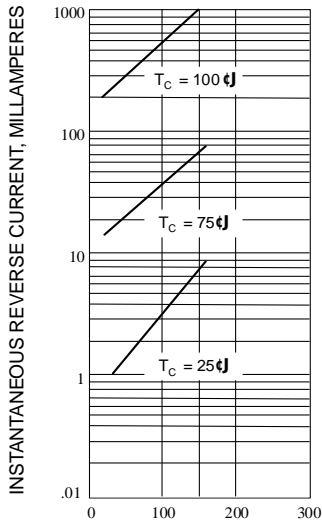


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

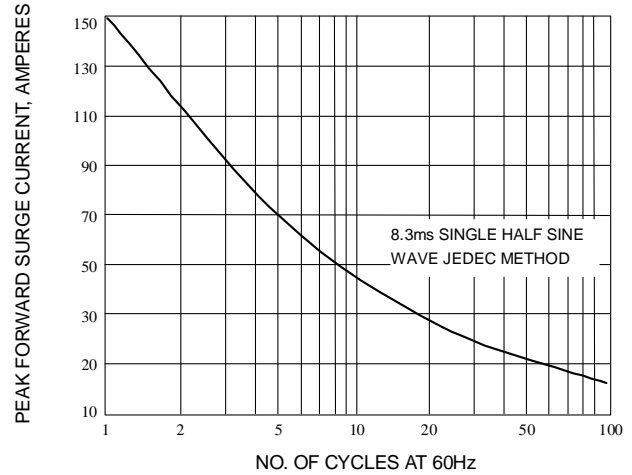


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

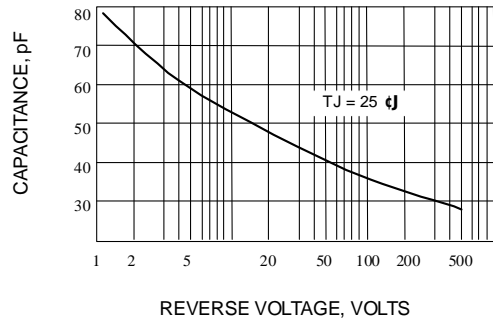


Fig. 5-TYPICAL JUNCTION CAPACITANCE